

**Rocky Flats Citizens Advisory Board  
Meeting Minutes  
October 14, 2004  
6 to 9 p.m.  
Broomfield Senior/Recreation Center, Lakeshore Room 2  
Broomfield, Colorado**

With both the Chair and Vice-Chair unable to attend, Bill Kossack, the Board's Secretary, called the meeting to order at 6:05 p.m.

**BOARD / EX-OFFICIO MEMBERS PRESENT:** Suzanne Allen, Jerry DePoorter, Earl Gunia, Erin Hamby, Bill Kossack, Mike Maus, Bill McNeill / Steve Gunderson (CDPHE), Mark Aguilar (EPA), Mark Sattelberg (USFWS), Joe Legare (DOE-RFPO)

**BOARD / EX-OFFICIO MEMBERS ABSENT:** Joe Downey, Victor Holm, Mary Mattson, Andrew Ross, Phil Tomlinson / John Rampe (DOE-RFPO), Scott Surovchak (DOE-LM)

**PUBLIC / OBSERVERS PRESENT:** Alan Trenary (Westminster resident), Ralph Stephens (Denver), James Horan (Denver), Rob Henneke (EPA), Norma Castaneda (DOE-RFPO), Michael Keating (Kaiser-Hill), Judy Keating (CH2MHill), Kim McGuire (Denver Post) / Ken Korkia (RFCAB staff), Patricia Rice (RFCAB staff)

**PUBLIC COMMENT / NEW BUSINESS:**

There was no public comment.

In new business,

- Member Earl Gunia noted that DOE had responded to the Board's letter supporting the U.S. Fish and Wildlife Services recommendations on demarcation of lands that will be retained by DOE once the wildlife refuge is established. In the response letter, DOE stated it would like to continue dialogue with the community on this issue. Earl asked when this dialogue might take place. Ken Korkia noted that the U.S. Fish and Wildlife Service will release the final Comprehensive Conservation Plan (CCP) for the refuge on November 19. He advised the Board might want to focus its December meeting on refuge issues, including the CCP and other issues such as the demarcation of boundaries.

- Earl next raised a question about one of the responses the Board received in its recommendation on the draft Interim Measure/Interim Remedial Action (IM/IRA) for the 903 Pad Lip Area. Specifically, the Board raised a concern about the need for DOE to sample sediments in the C-Series Ponds. Joe Legare with DOE responded that the C-Series Ponds would be addressed in the Surface Water Environmental Assessment. He also noted the site is currently investigating Pond C-1 for leakage and is also looking at the pond spillway. Joe also stated that DOE is waiting for a report from Kaiser-Hill on Pond C-2 regarding the outlet works. If work is necessary at this pond it would not be a CERCLA action, because there is no contamination involved, but would be covered under a Categorical Exclusion as part of the National Environmental Policy Act (NEPA).

- Member Erin Hamby informed the Board that she has reviewed the National Defense Authorization Language that was approved by Congress this week. In the language concerning the future Local Stakeholder Organization (LSO), she reported that the only change was the language restricting the LSO from being covered under the Federal Advisory Committee Act (FACA) was removed. She stated this change would help ensure better participation on the LSO because FACA prescribes a more open public process.

**ADMIN RECORD**

- Ken Korkia reported that DOE has agreed to provide the Board with \$100K in new funding for 2005. This is \$25K more than DOE originally proposed, but \$25K less than the Board's request. Ken noted, however, that DOE in its letter has agreed to revisit the Board's funding needs later in the spring. Because of DOE's own funding uncertainties at this time, it was not able to commit to the Board's full request of \$125K. Erin Hamby stated she wanted to reiterate to DOE that its assumption that the Board's workload was decreasing was not true, and in fact there was more work to do before final closure of the site. Joe Legare stated he understood the concern and said DOE's workload also had been increasing as closure draws near.
- Ken Korkia reminded the Board that officer elections would be held in November. He asked members to send nominations to him before the November meeting.

#### **ENVIRONMENTAL MANAGEMENT SITE SPECIFIC ADVISORY BOARD CHAIRS MEETING REPORT:**

Member Jerry DePoorter reported the he, Phil Tomlinson, and Ken Korkia had attended the recent meeting of the Environmental Management Site Specific Advisory Board (EMSSAB) chairs in Richland, Washington. He first described his impressions of the Hanford site based on the tour, noting the numerous mothballed nuclear reactors and the onsite waste disposal areas, particularly the one used for retired submarine and surface ship reactor cores. He said work is underway to start removing the sludge from the many underground liquid waste storage tanks. As for the meeting itself, he stated that many of the other boards that comprise the EMSSAB raised budget concerns with DOE. Other boards are also concerned about the transition of their sites from Environmental Management to other offices within DOE. Another concern raised at the meeting was lingering concerns about waste disposition. Many of the sites have wastes for which there currently is no pathway for final disposal.

To address the waste disposition issue, Jerry stated that the chairs had drafted a letter to Acting Assistant Secretary Paul Golan, asking for DOE to establish a national stakeholder forum on waste issues. Jerry presented the letter to the Board for their consideration. Some concerns were raised about the loftiness of the goals established for the forum and concerns that it would be just another meeting with discussion but no action.

The Board approved the letter unanimously.

Ken Korkia provided his observations on the tour of the Hanford site. He noted that the mothballed reactors are planned to remain that way for up to seventy five years. He also described the large landfill where over 10 million tons of contaminated soil will ultimately be buried. Ken stated that during the meeting the chairs did not agree on a future EMSSAB workshop. Candidate topics raised included a workshop on public participation and a possible workshop connected with preparing for the national waste forum, should DOE agree to adopt the chairs recommendation. A decision on a workshop will be deferred until the next chairs meeting that will be held near the Savannah River Site the last week of April 2005.

#### **PRESENTATION ON B-SERIES PONDS REMEDIATION:**

Mike Keating, Kaiser-Hill Project Manager for the B Ponds Remediation, gave a presentation on the current plans. The site is planning to remediate Ponds B-1, B-2, and B-3 to remove sediments that are contaminated above the wildlife refuge action level.

Mike said the area around the ponds is being prepared to do the remediation and to make it easier to gain access to the ponds area. Surface water controls are being installed to minimize runoff into the ponds while the remediation is occurring. Since the ponds must be dewatered before the sediments are removed, the water from the ponds is being pumped out. Water from B-1 is being pumped into B-2, which is then being pumped to Pond A-2 in the North Walnut Creek drainage system to the north. Mike said recent rains are making it difficult to drain the ponds.

In addition to surface water controls, erosion controls are being installed, access to the ponds is being upgraded, and staging areas are being constructed.

Existing sediment contains 100 to 300 percent moisture based on weight. In addition to removing the water from the ponds, the sediments will be stirred to promote air drying. Dry cement will be mixed with the sediments in the pond to remove water and make the sediment easier to handle. A pilot program will be conducted to evaluate the techniques for mixing cement and suppressing dust. Those "lessons" will be incorporated into the remediation plan.

All de-watered sediment will be removed from B-1, B-2 and B-3. Soil under the sediments will be removed so that it is beneath the Rocky Flats Cleanup Agreement action levels for the wildlife refuge worker. Contaminated sediment and any soil will be shipped offsite to Envirocare in Utah. Sampling to confirm that soil is below the RFCA action levels will be done according to a 36-square-foot grid.

Mike said erosion control would be emphasized. Controls will include straw wattles and straw bales, erosion mats placed in excavated areas, hydromulch and revegetation. A "certified" erosion engineer from the Colorado Department of Transportation will be an adviser on the project.

He said site preparation was being done this week. He said that influent to the wastewater treatment plant was stopped October 1. Effluent from the plant, which is pumped into Pond B-3, would cease by Nov. 1. The week of Oct. 18, the water will be pumped from B-1 and B-2 and enhanced air drying till take place in those ponds. During the week of Oct. 25, a pilot program will begin on reagent de-watering. Remediation is expected to be completed in the second quarter of 2005.

In answer to a question, Mike said there is a very clear demarcation between sediments and soil. The sediments are somewhat loose and are underlain by a compacted soil layer. In answer to another question, Mike said all the sediment will be removed from the ponds and shipped off for disposal. He said they expect to excavate six inches of soil.

Joe Legare of the Department of Energy's Rocky Flats Project Office said that in the future there would be a lot less water going into the ponds, which are part of the South Walnut Creek Drainage System. Much of the water now going into the South Walnut Creek system is from site activities, which will cease when the site closes.

In answer to a question, Mike said they are considering putting the sediments into large textile dirt bags, which will then be loaded into intermodal containers to go to Envirocare.

Mike was asked how they would avoid making "Pondcrete" when mixing the cement with sediments. When the site tried solidifying the sediments at the Solar Ponds with cement, some of the material did not harden. Ken Korkia said the problem with the sediments at the Solar Ponds was that it contained too much nitrate.

CAB Member Jerry DePoorter said he and CAB staff had toured the ponds Oct. 13 and learned a lot about the ponds up close. He said it had been a valuable tour. He praised DOE's John Stover, the nominal tour guide, for his exceptional knowledge about the pond system.

Joe Legare mentioned that it was important that the work begin soon so as to coincide with the hibernation of the Preble's Meadow Jumping Mouse, which he said extended from October to March. Joe also said it is unlikely the ponds would capture much more contamination from the site if remediation were delayed. He said the standards for surface water were so low, that even the current limit exceedances would not deposit much plutonium into the sediments if remediation were delayed.

A question was asked about contaminants potentially being absorbed in the pond dams. The site has plans to "notch" the dams and there was a concern that dam material may be contaminated with radionuclides. Mike said they are planning to sample the sediments at the foot of the dam.

At the end of Mike's presentation, Patricia Rice said there had been issues with the document governing cleanup of the ponds and asked the regulators to talk about concerns she had discussed with them earlier in the day. However, Steve Gunderson of the Colorado Department of Public Health and Environment (CDPHE) and Mark

Aguilar of the U.S. Environmental Protection Agency (EPA) said their staff had been working with the site and the issues had been resolved to their satisfaction.

There will be a meeting with stakeholders on the ponds at 2 p.m. Tuesday, October 19, at Broomfield Public Library.

#### **PRESENTATION ON DEER TISSUE SAMPLING:**

Mark Sattelberg of the U.S. Fish and Wildlife Service gave a presentation on testing of deer for uptake of radionuclides. The short of it is that there was very little uptake.

Mark emphasized that his results are preliminary. Deer tissues were collected December 8, 2002 from 28 deer at Rocky Flats by the state Division of Wildlife to test for Chronic Wasting Disease. No CWD was found. The FWS took samples of the lung, liver, muscle, bone, and kidney from the deer to test for uptake of radionuclides. Samples were taken from a "control deer" from the Rocky Mountain Arsenal National Wildlife Refuge. The samples were frozen and later sent to the General Engineering Laboratories in South Carolina on July 6, 2004. Because of laboratory error, subsamples were sent on July 21, 2004.

Next, the Fish and Wildlife Service calculated thresholds for radionuclide uptake in the deer that were based on potential risks to humans eating the deer. They calculated a preliminary threshold for an excess lifetime cancer risk of one in a million. Then, they adjusted the calculation for a one in ten million excess lifetime cancer risk. The reporting threshold for plutonium came out to 0.002 picocuries per gram (pCi/G), for americium at 0.001 pCi/g, and for uranium-234 and uranium-238 each at 0.02 pCi/g.

Of 454 analyses, Mark said there were only 17 detections above the laboratory detection limit, the limit at which the radionuclides could be detected in the samples. Mark said the "uncertainty values" were *added* to the results obtained for the 17 detections to come up with a conservative analysis. Of the 454 analyses, there were only two above the reporting threshold. One was americium in a kidney sample at 0.001557 pCi/g and the other was uranium-233,234 in a liver sample at 0.0217 pCi/g. There were no analyses showing plutonium in tissue above the reporting threshold.

In the control deer, results showed 0.0005 pCi/g of americium in the kidney and 0.0008 pCi/g of americium in the liver and 0.0038 pCi/g of uranium-235,236 in the liver.

Mark said based on the results, the excess cancer risk to a human who ate the meat from one deer, estimated at 28 kilograms, would be one in 21 million. If deer meat were consumed every year for 70 years, the excess lifetime cancer risk would be one in 319,000.

The preliminary conclusion from the preliminary data is that there is low assimilation of radionuclides in deer through ingestion.

In answer to a question about whether the "uncertainty" was, in fact, the standard deviation, Mark said he is awaiting the answer to that question from the laboratory. In answer to another question, he said the size of the deer herd on the site is an average of 140 mule deer and 12 whitetail deer.

#### **DISCUSSION ON INDEPENDENT VERIFICATION AND VALIDATION OF SITE CLEANUP:**

DOE has decided to hire the Oak Ridge Institute for Science and Education (ORISE) to conduct an independent verification and validation (IVV) of site soil cleanup. The Board discussed its views on the IVV process and how best to involve the community.

The discussion began with a concern raised that what is currently proposed is a verification, but not a validation of cleanup. Contrasts were made between what DOE needs to do to verify that its contractor has completed the cleanup work and a validation process that will prove that the site

has met its obligations under the Rocky Flats Cleanup Agreement (RFCA). Joe Legare explained that DOE has a checklist they will use with Kaiser-Hill to verify that the physical work necessary to complete site cleanup is indeed accomplished. The contractor will get the bulk of the award fee for doing the physical work. The contractor must also do work to document contract completion, most notably preparation of the Remedial Investigation/Feasibility Study (RI/FS). For this they will also be awarded a fee. Once they have done all the physical cleanup activities and completed the paper work, the contractor and DOE will agree on a final award fee amount to close out the contract. Joe noted that it is DOE, and not the contractor, that ultimately must comply with RFCA. DOE will use ORISE to validate the surface soil cleanup to satisfy the needs of RFCA and also to verify Kaiser-Hill has done what it was supposed to do. ORISE will check the methodology Kaiser-Hill uses to verify "do you know what you think you know."

Also in discussion, a concern was raised that the IVV process is focused on soils, but not on surface water, ground water and biota. Joe Legare replied that ground water remediation will be ongoing past the time of physical site closure. Thus, an IVV is not appropriate for work that is ongoing. He suggested that if the community is concerned about ground water remediation, they need to focus on the methodologies used to decide what needs to be done to achieve cleanup. Also, they must look at the monitoring that will be performed and how monitoring data is shared with the public in the future.

A related concern was raised that the IVV focuses only on the radionuclide cleanup, but not on other contaminants. For surface soils, Joe pointed out that contamination from other materials besides radionuclides is minimal. These other contaminants are primarily volatile organic compounds in groundwater. Joe also stated that the site will perform the Comprehensive Risk Assessment (CRA). DOE will hire an independent group to look at the implementation of the CRA. He also stated that DOE has sent a letter to the Agency for Toxic Substances and Disease Registry (ATSDR) asking them to perform an independent assessment of the residual risk on site. ATSDR has recently issued a report on the offsite areas.

Mark Aguilar with EPA stated that his agency is the ultimate authority that will validate whether the site is cleaned up. They will issue a certification before the property can be turned over to the U.S. Fish and Wildlife Service.

A member asked where information about the remaining site risks will be recorded. Joe replied it will be in the Remedial Investigation/Feasibility Study (RI/FS) report. This document will be released in serial fashion as different parts are completed. Another member received an affirmative response when he asked whether the Quality Assurance/Quality Control information will be available for public review.

With time running out, Ken Korkia stepped in to help the Board decide its next steps related to the IVV and its own involvement, as well as that of the larger public. He noted that the Coalition of Local Governments will receive up to \$25K from DOE to hire an outside consultant to review the IVV as it is being done by ORISE. Members raised concerns that the public outside the Coalition membership has not been given an equal opportunity to participate in the recent meetings held by the Coalition on the IVV review. They are allowed to speak and ask questions only after the Coalition members have done so, and only if enough time remains. Because the Coalition will use DOE funds, the members agreed that opening up the process, similar to the fashion the CAB had done for other projects, such as the Soil Action Levels review and the Actinide Migration Evaluation, is a necessity. Ken advised that the next Coalition meeting on the IVV is tentatively set for October 25.

Ken also asked the Board to consider how the broader public can be involved in the IVV process. He raised the example of the Actinide Migration Evaluation as a model that could be used. He pointed out that perhaps the Board could work with DOE in sponsoring open public meetings during the IVV process. These meetings would provide a forum for ORISE to explain its work and its

findings. Joe Legare noted this would be important because DOE would like to focus public involvement in one venue, rather than asking ORISE to have to travel and attend separate meetings of the many stakeholders groups and interests.

The Board decided to continue its discussion on the IVV and public involvement at its November meeting.

#### **PLANNING FOR UPCOMING MEETINGS:**

In November, the Board will continue its discussion on the IVV and public involvement. There also will be a presentation on the recent site decision not to use explosives for demolishing Building 371.

In December, the Board will focus the meeting on the Rocky Flats National Wildlife Refuge. U.S. Fish and Wildlife will present the final Comprehensive Conservation Plan. Members also will identify other topics, such as the demarcation of lands retained by DOE, for further discussion.

#### **NEXT MEETING:**

*Date: November 4, 2004 6 to 9:00 p.m.*

*Location: Broomfield Recreation Center, Lakeshore Room 2*

*Agenda:*

- *Presentation and Discussion on Revised Demolition Strategies for Building 371*
- *Discussion on Public Participation in the Independent Validation and Verification of Rocky Flats Cleanup*

#### **MEETING ADJOURNED AT 9:00 p.m. \***

(\* Taped transcript of full meeting is available in the RFCAB office.)

RESPECTFULLY SUBMITTED:

Bill Kossack, Secretary  
Rocky Flats Citizens Advisory Board

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The Rocky Flats Citizens Advisory Board is a community advisory group that reviews and provides recommendations on cleanup plans for Rocky Flats, a former nuclear weapons plant outside of Denver, Colorado.

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